

Could IT Adoption Capability And Digitalization Improve Firm Performance The Necessity Of Entrepreneurial Orientation And Transformational Leadership

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Abstrak

Penelitian ini menyelidiki apakah kemampuan adopsi TI (ITAC) dan digitalisasi akan meningkatkan kinerja perusahaan. Studi ini juga mengkaji orientasi kewirausahaan (EO) dan kepemimpinan transformasional (TL) sebagai prasyarat potensial yang dapat membantu pengembangan ITAC. Model penelitian yang diusulkan menggunakan pandangan berbasis sumber daya (RBV) dan kapabilitas dinamis (DC). Analisis akan membantu pemahaman prekursor ITAC dan bagaimana hal itu dapat membantu menjadi keunggulan kompetitif. Penelitian empiris dilakukan pada perusahaan perhotelan yang beroperasi di wilayah Jabodetabek. Penelitian ini mengadopsi metode kuantitatif dengan menggunakan data yang dikumpulkan melalui survei dari manajer atau pemilik perusahaan. Berbagai uji validitas dan reliabilitas dilakukan sebelum analisis menggunakan model persamaan struktural (SEM). Hasilnya menyimpulkan bahwa kemampuan adopsi TI dan digitalisasi sangat penting dalam meningkatkan kinerja perusahaan. Kewirausahaan tingkat perusahaan dalam bentuk orientasi kewirausahaan dan perusahaan yang dilengkapi dengan kepemimpinan transformasional akan memudahkan pengembangan kemampuan adopsi TI. Studi ini menunjukkan bahwa perusahaan yang ingin mengembangkan kapabilitas adopsi dan digitalisasi TI sebagai keunggulan kompetitif mereka harus lebih berwirausaha dan didukung oleh kepemimpinan transformasional. Sebelum menjalani digitalisasi, perusahaan harus membangun kemampuan adopsi TI mereka. Riset ini juga menyoroti bahwa kapabilitas adopsi dan digitalisasi TI akan mencapai kinerja yang diinginkan. Studi ini membahas pentingnya perilaku tingkat perusahaan dalam bentuk orientasi kewirausahaan dan jenis kepemimpinan yang diperlukan untuk mengembangkan kapabilitas adopsi TI sebagaimana diperlukan dalam lingkungan saat ini. Penelitian ini menggarisbawahi pentingnya kemampuan adopsi TI untuk perusahaan wirausaha dan transformasional yang berencana menjalani digitalisasi. Riset ini juga berfokus pada mengisi kesenjangan penelitian tentang bagaimana industri perhotelan merumuskan strategi di dunia digital.

Abstract

This research investigates whether IT adoption capability (ITAC) and digitalization would improve firm performance. This study also examines entrepreneurial orientation (EO) and transformational leadership (TL) as potential prerequisites that may help the development of ITAC. The proposed research model employs a resource-based view (RBV) and dynamic capabilities (DC). The analysis would help the understanding of the precursors of ITAC and how it may help become a competitive advantage. Empirical research conducted in hospitality firms operating in the greater Jakarta area. This study adopts quantitative methods using data gathered through surveys from firms' managers or owners. Various validity and reliability tests were conducted before the analysis using structural equation modeling (SEM). The results conclude that IT adoption capability and digitalization are critical in improving firm performance. Firm-level entrepreneurship in the form of entrepreneurial orientation and firms equipped with transformational leadership would ease the development of IT adoption capability. This study suggests that firms wanting to develop IT adoption capability and digitalization as their competitive advantage should be more entrepreneurial and supported by transformational leadership. Before undergoing digitalization, firms must build their IT adoption capability. The research also highlights that IT adoption capability and digitalization will achieve the desired performance. This study addresses the importance of firm-level behaviour in the form of entrepreneurial orientation and the type of leadership required to develop IT adoption capability as necessary in the current environment. It underlines the importance of IT adoption capability for entrepreneurial and transformational firms planning to undergo digitalization. It also focuses on filling the research gap on how the hospitality industry formulates strategy in the digital world.

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1. INTRODUCTION

Firms want to win the market by outperforming their competitors. Improved performance is the ultimate objective of strategic management (Lubatkin & Shrieves, 1986). Firm performance

may be measured through financial performance, operational performance, and organizational effectiveness (Venkatraman & Grant, 1986). As each firm may have different missions and objectives, firm performance is subjected to stakeholders' interests (Richard et al., 2009). Firm performance may be influenced by many factors, internally and externally. Rumelt (1991) found that external factors contribute only 20% of firm performance. On the other hand, Barney (1991) suggests that managing internal resources would build a competitive advantage required for firm performance. Hence, internal factors are crucial for firms pursuing improved performance. Leadership has been identified as a critical factor in supporting work culture (Shuck et al., 2019). Promoting change in work cultures, such as adopting new technologies and processes, would require the type of leadership where the leaders would interact with the followers to build motivation and morale (Northouse, 2019). Transformational leadership is critical in innovation (Iqbal et al., 2021). Firm-level entrepreneurship behavior identified as an entrepreneurial orientation has an essential role in technology adoption (S. Chatterjee et al., 2020).

The significance of information technology has transformed its role from organizational support to enabler. The importance of information technology capability has transformed how businesses should be operated and how firms can win the competition even when small (Molinillo & Japutra, 2017). The gravity of information technology at the organizational level is as important as ever (Lehner & Sundby, 2018). Firms simply can not operate without the use of information technology. IT capability from RBV perspective reflects the pursuit of competitive advantage by mobilizing and deploying the various types of IT resources (i.e., tangible, intangible, and human-based resources) in combination with other firm resources, assets, and capabilities (Barney, 1991; Bharadwaj, 2000). IT capability has become critical not just as an organizational resource but as a means to transform other resources in pursuit of competitive advantage. Likewise, organizations increasingly utilize digitalization to increase the value added for their customers (Amit, Raphael; Han, 1996; Sturgeon, 2021).

The tourism industry plays an important role in economic and global community development. The tourism industry contributed more than 10.4% of the global GDP in 2018. The growth in tourism-based firms may strengthen middle-income level development in Asia and other parts of the world. The tourism industry is projected to have a growth rate of 50% in the next decade (Suyunchaliyeva et al., 2020). While the Indonesian tourism industry has contributed to more than 4.7% of the national GDP (BPS, 2020), it is still much less significant than the global tourism contribution to GDP. Hence, there is still plenty of room to grow. Especially with Indonesia having more than 17.000 islands, 300 tribes, and 700 languages, just some indicators and potential for the tourism industry as the economic power horse (Bappenas, 2019). Rapid dynamic changes caused by events, technology, and global impact, such as the pandemic, have forced society and industry to adapt to all uncertainties (Sharma et al., 2020).

This proposed research aims to fill theoretical and academic research gaps in the current literature about the concepts under observation. One of the theoretical gaps is the need for an empirical study investigating the leadership characteristics that may be the most effective in navigating firms to adapt in an ever-changing environment (Akdere & Egan, 2020). Current research proposes transformational leadership as the most suitable type of leadership to prepare firms to exploit technological changes. A literature review of the concepts also discovers potential research gaps in the firm performance and IT adoption capability concept. Recent empirical research examining the impact of information technology capability on firm performance and innovation has generated equivocal results (Sabherwal & Jeyaraj, 2015). A study by Uwizeyemungu et al. (2018) calls for more future studies extending resource configuration in IT capability with non-IT-related resources. This study introduces IT adoption capability as the most appropriate IT-related capabilities necessary for firms. Additionally, this study aimed to address the contextual gap raised due to limitations of research context, such as the type of firms and industries in the prior literature. This study focuses on tourism industry firms, especially the ones in food and beverages.

This research investigates whether IT adoption capability (ITAC) and digitalization (D) would improve firm performance. This study also examines entrepreneurial orientation (EO) and transformational leadership (TL) as potential prerequisites that may help the development of ITAC and digitalization. The proposed research model employs a resource-based view (RBV) and dynamic capabilities (DC). The proposed research will answer the following questions: Will IT adoption capability and or digitalization be able to improve firm performance? What are the precursors for IT adoption capability and or digitalization? The analysis would help the understanding of the precursors of ITAC and digitalization and how it may help become a competitive advantage so firms may maneuver themselves in the challenging environment. Empirical research conducted in hospitality firms in the greater Jakarta area. This research analyzes IT adoption capability (ITAC) and digitalization (D) as the potential mechanism to process and alter internal resources such as transformational leadership (TL) and firm-level entrepreneurship, i.e., entrepreneurial orientation (EO) that yields superior firm performance (FP). Structural equation modeling (SEM) allows this research to examine the relationships between constructs under observation and ensure the proposed research model's validity and reliability.

2. THEORETICAL FRAMEWORK

In constructing the research model, this study adopts several prominent perspectives in the field of strategic management. The sequential positioning of firm resources, including entrepreneurial orientation and transformational leadership, followed by intervening IT adoption capability that results in firm performance, is plausible according to the prominent resource-conduct-performance (RCP) framework based on RBV theory (Barney, 1991). Entrepreneurial orientation is an organizational culture represented by specific behaviors (Covin & Slevin, 1991). Although transformational leadership is a leadership style, it is widely influential in achieving desired outcomes of organizations, such as human capital, performance, and innovation capability (Le & Lei, 2019). Hence, both concepts are critical for firms and may be classified as resources. Prior literature suggests that entrepreneurial orientation influences firm performance and would be best observed by building forms of organizational capabilities instead of directly affecting performance (Rauch et al., 2009). Therefore, this research proposed that entrepreneurial orientation affects firm performance in this particular research context where information technology has shifted from ‘support function’ to ‘enabling’ would have to go through the development of IT adoption capability. Based on the discussion, this research proposes the following model, as depicted in Figure 1 below.

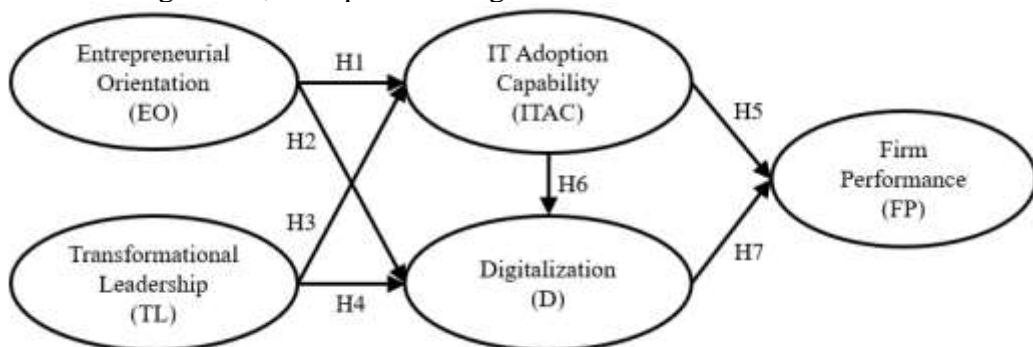


Figure 1. Research Model

Dynamic capabilities (DC) may also provide plausible justification for the research model. Dynamic capabilities' role is to sense, seize, and reconfigure the resources the firm endowed (Teece et al., 1997). In this research proposed model, the dynamic capability is incorporated as transformational leadership able to alter organizations to adapt to environmental change and performance demand. For example, transformational leadership can facilitate both incremental and radical innovation (Gui et al., 2021), target environmental performance (Singh et al., 2020),

and improve service behavior in the hospitality industry (Yang et al., 2021). Entrepreneurial orientation represents corporate entrepreneurship acting as a key driver for organizational and strategic transformation through the conception and combination of resources (Dess et al., 1999) by providing the groundwork for building new competencies or revitalizing existing ones (Zahra et al., 1999). IT adoption capability suitably acts as a mediator between organizational resources and firm performance (Bharadwaj, 2000; Bhatt & Grover, 2005). Due to its ability to sense, seize, and reconfigure other resources, IT adoption capability is central to firm dynamic capability (Bharadwaj, Sambamurthy, & Zmud, 1999; Kim et al., 2011; Pan et al., 2015). IT adoption capability is also illustrated to have both direct and indirect benefits (Mittal & Nault, 2009).

1. Entrepreneurial Orientation (EO)

Firms that want to implement successful firm-level entrepreneurship need an entrepreneurial orientation (EO) (Dess & Lumpkin, 2005). Entrepreneurial orientation indicates firms' strategy-making practices to determine and initiate new firm ventures. The concept is derived from prior research that conceptualized strategy-making in terms of patterns of action or decision-making styles commonly conducted within the organization (Rajagopalan et al., 1993). As a pioneer, Mintzberg (1973) proposed that important decisions forming strategies could be classified into adaptive, entrepreneurial, and planning modes. The entrepreneurial mode, according to Mintzberg, was characterized by "the active search for new opportunities" and "dramatic leaps forward in the face of uncertainty." Morris and Kuratko (2002) has identified entrepreneurial orientation as a major construct within the strategic management and entrepreneurship literatures over the years. Entrepreneurial orientation could be conceptualized as management beliefs, preferences, and behaviors indicated by firm leaders that are significant in predicting firm-level outcomes (Covin et al., 2006). EO might also be viewed as a strategic choice taken as a key decision to pursue more entrepreneurial activities to produce sustained competitive advantage in achieving a firm's visions and purposes (Rauch et al., 2009). EO reflects how much firms are intentionally and principally able to identify and exploit untapped opportunities (Lumpkin & Dess, 1996). EO also posited the extent to which firm prioritise the process of recognizing and exploiting market opportunities (Shane & Venkataraman, 2000). In short, the construct of EO represents what it means for a firm to be entrepreneurial at the most fundamental level (Anderson et al., 2015).

2. Transformational Leadership (TL)

Prior research indicate that there are various various types of leadership with different effects to firm performance (Budur & Poturak, 2021). While each type of leadership has their own advantage, McCleskey (2014) believes that transformational leadership (TL) is the most influential in developing the work and organizational dynamics including work environment, team work, and the change in work procedurs. Diaz-Saenz (2011) postulates that TL significantly influences the employees' and firms' performance. Transformational leadership increasingly has become a popular topic in the management literature due to its inspirational ability to creatively impact the followers in the form of attitudes, behaviour, and individual development (Khalili, 2017; Yin et al., 2019). Furthermore, transformational leadership has an ideal influence enabling leaders successfully motivate employees to conduct changes and pursue continuous innovation for the growth of organization (Le, 2020; Le & Lei, 2019).

3. Information Technology Adoption Capability (ITAC)

Information technology capability research has grown into a more appropriate concept representing IT capability at different levels, contexts, and understanding. With limited resources, information technology utilization is essential for SMEs to improve business processes and achieve a competitive advantage in a dynamic environment (Rohrbeck, 2010). Utilizing information technology becomes a firm capability to optimize IT applications and benefits, so firms have the capacity to sense, create, seize, and reconfigure their resources to achieve and continuously improve competitive advantage in the fast-changing environment (Adeniran & Johnston, 2016). The use of information technology or IT adoption may be assigned by different names in prior works of literature. Musabila (2012) defines IT adoption capability simply as the firm capability to use IT applications and functions in business. Similarly, Eze & Chinedu-Eze (2018) conceptualized IT adoption broadly as any IT

developments or improved IT applications, including document management, knowledge management, customer management system, and mobile applications. This generic understanding does not consider the level of sophistication in IT use.

The different perspectives on IT adoption have caused diverse dimensions and indicators to be used to conceptualize IT adoption. After all, IT adoption research is among the mature stream widely discussed in information systems (Brown et al., 2010). A study by Setiowati et al. (2015) focuses on the use of email for communication and web-based application to conceptualize express information communication technology adoption. Van der Veen (2004) explain IT adoption using different dimension explaining the process of technology adoption, such as business process activities, application, value creation, and stage of development. Chiu and Yang (2019) interpret IT adoption as the capability expressed by more comprehensive dimensions comprising IT infrastructure, strategic alignment, organizational structure, and individual learning. IT infrastructure relates to the physical components and software invested in enabling IT adoption (Chen & Tsou, 2007). The benefit of IT adoption to performance may be gained when strategic alignment occurs (Piccoli & Ives, 2005). Furthermore, the tasks in the business process must be correctly segregated, assigned, and coordinated in the organization structure (Liao et al., 2011). The acceptance and success of information technology hinged on the ability of the team members to improve or renew their competencies through individual learning (Slavin, 2013).

4. Digitalization (D)

The concept of digital transformation originates from the term digitization which has a broad definition related to the use of digital technology to innovate business models, provide sources of acceptance, and value creation opportunities (Kohtamäki et al., 2019; Parida et al., 2019). To be successful in carrying out the digitalization process, companies must take the initiative and build specific capabilities at every organizational and operational level in their business model (Battistella et al., 2017; Eller et al., 2020). When a company is able to develop digital and IT resources and capabilities, the company will be more perfect to manage and also have a competitive advantage in the digitalization process (Chi et al., 2008). Technology and digitalization have a vital role to play in helping countries, industries and organizations overcome various challenges (Soluk et al., 2021).

Currently digitalization is increasingly being used by various organizations to create and provide added value to customers (Amit, Raphael; Han, 1996; Sturgeon, 2021). The creation of added value is related to the creation of a value proposition from a product or service (Priem, 2007). For example, digital platforms such as AirBnb enable direct interaction between service providers and customers (Jiang et al., 2019; Matarazzo et al., 2021). In the Indonesian tourism industry, it is also known as Traveloka and Tiket.com enable tourists to find the best offers from various tourist attractions.

5. Firm Performance (FP)

Firm performance could be considered as the main objective of management in general and strategic management in particular (Rumelt, Schendel, & Teece, 1994) as the primary assumption taken is that strategy affect firm performance (Lubatkin & Shrieves, 1986). Firms with proper strategic management are expected to perform better than their competitors. Since the beginning of consensus in strategic management definition, most strategic management studies aim to establish specific relations to firm performance, albeit positive or negative (Nag et al., 2007). Firm performance has been widely adopted as the final dependent variable (Richard et al., 2009) in many fields (Wiklund & Shepherd, 2003). Different concepts and theories from internal firm perspectives have been introduced to enrich strategic management literature to achieve sustainable competitive advantage and eventually improve firm performance (Barney, 1991; Rees & Porter, 2006; Teece et al., 1997). The external

environment affecting firm performance is also considered a potential determinant of strategy related to firm performance (Porter, 2008).

Venkatraman and Ramanujam (1986) illustrate performance as a layer of onion with the smallest core falling into the domain of financial performance, followed by the broader business performance and the largest organizational effectiveness. At the center, financial performance usually measures sales growth, profitability, etc. The next layer, business performance, refers to financial performance with the addition of operational performance that is represented by market-share, new product introduction, marketing effectiveness, product quality, etc. Operational performance could be defined as accomplishing various operational goals within the value chain activities that may result in firm or organizational performance (Combs et al., 2005). When the influences of stakeholders are considered in performance, the firm performance measurement could move into organizational effectiveness. It is defined as the extent to of organizations fulfil the objectives and purposes initially created (Strasser et al., 1981). Organizational or firm performance refers to the economic outcome of a mixture of organizational actions and the environment (Combs et al., 2005). While Hamann et al. (2013) may argue that firm performance is more synonymous with corporate economic performance, the earlier conceptualization of performance by Venkatraman and Ramanujam (1986) concurring with Santos and Brito (2012) that firm performance based on stakeholder theory could be more diverse depending on the firm objectives.

3. HYPOTHESIS DEVELOPMENT

Entrepreneurial orientation may help facilitate the conditions in developing information systems. Entrepreneurial orientation facilitates circumstances whereby resources could be conveyed with appropriate managerial attention (D. Chatterjee et al., 2002). Zhou et al. (2005) claimed to have empirically proven that entrepreneurial orientation support firms' technological innovations. Firm entrepreneurial orientation would be a positive influence on the transformation of cloud technology (Yu et al., 2018). Similar to entrepreneurship, innovativeness and proactiveness as two of the main dimensions of entrepreneurial orientation are closely related with firm willingness to experiment with technologies such as IT to improve their performance. Innovativeness and proactiveness would facilitate the adoption of new technology to give rise to new ideas and creative processes (Lumpkin & Dess, 1996). The basic of entrepreneurship may be derived from the innovation which transforms the market generated by small firms leveraging on their scarce resources (Steensma et al., 1995). Innovation itself is a result of firm innovativeness (Hurley & Hult, 1998). The degree of products and services arguably corresponds to the extent of information technology utilization (Janson & Wrycza, 1999).

Several empirical research works have examined the influence and contribution of entrepreneurial orientation for firms building information technology-related capabilities. Zhang et al. (2013) research on the born global firms empirically discovers that IT capability mediates international entrepreneurial orientation and firm performance relationship. Choi and Williams (2016) claimed that firms' technology would be the intervening concept of entrepreneurial orientation and performance. A strategic entrepreneurship perspective suggests that the role of an entrepreneur is critical in technology entrepreneurship (Beckman et al., 2012). From the absorptive capacity lens, competitive performance in SMEs could be achieved when entrepreneurial orientation goes through e-business capabilities (Raymond & Croteau, 2015). The same arguments apply for how entrepreneurial orientation would advances digitalization.

From the RBV and DC perspectives, a high level of firm's entrepreneurship conceptualized as EO reflected by proactiveness, innovativeness, and risk-taking would be beneficial for firms. In SMEs, EO represents internal management practices that focus on innovativeness and proactiveness to gain a competitive advantage in the market (Ključnikov et al. 2019). Accordingly, this research advances the following hypotheses:

H1: Entrepreneurial orientation (EO) positively influences information technology adoption capability (ITAC)

H2: Entrepreneurial orientation (EO) positively influences digitalization (D)

Previous research indicates that transformational leadership is generally beneficial to the improvement of work performance. Nugroho et al. (2022) conclude that transformational leadership enhance the training instructor performance. Transformational leadership is also known to help moderate entrepreneurial orientation influence organizational commitment (Iqbal et al., 2021). This would further advance the objective to pursue innovation, such as technology adoption capability and digitalization. Through knowledge-collecting and knowledge-donating behaviour, transformational leadership will have positive impact on incremental and radical innovation (Gui et al., 2021). Not limited to the current type of innovation in technology, transformational leadership in green movement will help improve HRM practices and innovation, yielding better environmental performance (Singh et al., 2020). Furthermore, transformational leadership through knowledge sharing improve product and process innovation (Le & Lei, 2019). Based on the preceding arguments, this research hypothesizes the following:

H3: Transformational leadership (TL) positively influences information technology adoption capability (ITAC)

H4: Transformational leadership (TL) positively influences digitalization (D)

Preexisting literature has established that information technology capability would directly influence firm performance positively. Bharadwaj (2000) arguably provides the cornerstone of information technology and firm performance relationship by empirically demonstrating that firms with high IT capability outperform their peers in profit and cost-effectiveness. In a similar vein, Santhanam & Hartono (2003) have tested and proven that sustained firm performance, even with the adjustment of the 'halo' effect, could be achieved with the implementation of superior information technology capability. Similar positive results are also exhibited by several meta-analysis studies focusing on information technology capability payoff by Kohli and Devaraj (2003) and Sabherwal and Jeyaraj (2015). Information technology business value literature review concluded that the positive role of information technology in coherence with the abovementioned literature (Pintaric & Bronzin, 2013; Schryen, 2013).

There are several possible justifications for how information technology capability may affect firm performance. The effect of information technology capability on firm performance may begin at the process level and aggregate at the firm level (Barua et al., 1995; Melville et al., 2004; Mithas et al., 2011). Research works by Setia et al. (2013) and Ray et al. (2005) posit that IT capability influences the business process. Information technology capability is also proven to affect the new product/service development process (Pavlou & El Sawy, 2006, 2011). Tarute and Gatautis (2014) provide a comparative analysis of extant scientific literature, which concludes that information technology capability improves external and internal firm communications in SME firms that work best when correctly aligned with internal capabilities and firm process. IT adoption capability is also known to be the mechanism in translating strategic orientations into firm performance (Nugroho, Prijadi, et al., 2022). Hence, the ability of IT capability to improve the business process would eventually enhance firm performance (Queiroz et al., 2017).

The soundness of information technology capability and firm performance could be explained from the RBV viewpoint. The resource-based view has been widely used to study information technology business alignment seen from a strategic perspective as it allows researchers to focus on critical issues of IT capabilities in achieving a firm competitive advantage (Wade & Hulland, 2004). Firms' success is determined by its ability to gather, combine, and manage VRIO (valuable, rare, inimitable, organizable) resources, including IT-based resources (Barney, 1991; Mata et al., 1995) such as information technology capability. Most cited works

of literature (e.g., Bharadwaj, 2000; Mithas et al., 2011; Santhanam & Hartono, 2003; Tippins & Sohi, 2003) exploring the study of information technology capability and firm performance adopt resource-based view as the adopted theoretical perspective.

Extending the resource-based view, information technology (IT) capability and firm performance relationship may also be scrutinized from a dynamic capabilities perspective. Definition of IT capability by Bharadwaj (Bharadwaj, 2000) where IT capability reflects firm ability to assemble and expand IT resources and mix them with other resources and capabilities, has implied IT capability might be the implementation of dynamic capabilities. Beyond IT capability as firm resources, it can sense opportunity and enable firms to bundle and reconfigure resources through its various virtue. Ramon-Jeronimo and Herrero (2017) explain the SME performance difference through IT capability as it has the ability to transform inputs such as market knowledge, product expertise, technologies acquired, etc., into different resourceful outputs in the form of e-marketing capabilities essentials for today's competition. Based on the preceding arguments, this research hypothesizes the following:

H5: Information technology adoption capability (ITAC) positively influences firm performance (FP)

H6: Information technology adoption capability (ITAC) positively influences digitalization (D)

Digital transformation has forced hospitality and tourism organizations to build and sustain digital-related capabilities that enable them to provide better sales, service, analysis, and access support. Busulwa et al. recommend the integration of digital competencies to achieve better performance. As part of strategic agility, digitalization allows hospitality firms to deliver to interact with partners and deliver customer value (Hadjielias et al., 2022). Digitalization could alter how the travel industry offers its services as it affects the customers' journey using big data and user-generated content (Cuomo et al., 2021). It further attracts new customers and provides increasing sales for tourism firms. In addition, prior systematic literature reviews indicate that improved firm performance is one of the most desired outcomes of digitalization (Annarelli et al., 2021). Accordingly, this research suggests the following hypothesis:

H7: Digitalization (D) positively influences firm performance (FP)

4. METHODS

The research data was gathered through surveys from firms in a similar industry in Jakarta. Since most firms are reluctant to disclose their archival data, perceived measurement is adopted in this research (Alegre & Chiva, 2013). In addition, private limited firms usually have different means of reporting causing it to be more challenging to interpret their data (Sapienza et al., 1988). This study utilizes a quantitative method using data collected through questionnaires from employees in different companies but the same industry. This research begins with face-validity interviews with several industry players to ensure the survey is valid and reliable. Next, the acceptable questionnaires are distributed online to employees in several companies using simple random sampling. After screening and filtering, the data resulted in 234 final respondents. Utilizing sequential equation modeling (SEM), the data set was analyzed to observe the significance of the relationships. They are analyzed using AMOS 24. The post-survey interviews further illustrate the findings of this study.

Entrepreneurial orientation (EO) in this study is measured by a simplified 13-item scale by Covin and Slevin (Covin & Slevin, 1991). Transformational leadership (TL) utilizes an 8-item measurement developed by Gui et al. (2021). Information technology adoption capability (ITAC) is measured using 17-scale items by Chiu and Yang (2019). Digitalization (D) adopts a 13-item measurement by Kohtamäki et al. (2020) with the indicators originally developed by Jayachandran et al. (2005). Firm Performance (FP) is measured using a 9-item scale by Liu et al. (Liu et al., 2015). All the items were measured using a five-point Likert scale, with 1 (one) representing strongly disagree and 5 (five) meaning strongly agree. Since all the measurements'

validity and reliability are well tested in previous literature, no pilot tests are carried on in this research.

5. FINDINGS AND DISCUSSION

Measurement model analysis was carried out preceding the structural relationships examinations. AMOS 24 was utilized for confirmatory factor analysis (CFA), ensuring the measurement model fit. Model fit requirements based on Hair et al. (2014) and Hu and Bentler (1999) are CMIN/DF less than 3, a significant p-value is expected, GFI is larger than 0.8, CFI is at least 0.9, RMSEA and RMR are expected to be less than 0.07. Table 1 fit indices show that the results are within these thresholds. The standardized estimates of each indicator used to measure the variables are also acceptable. Hence, the measurement model for the proposed research model is soundly established.

Table 1. Measurement Model Data Analysis

Criteria	Threshold	Reference	Result
Factor Loading	0.50	Hair, Black, Babin, and Anderson (2014)	All items scored higher than 0.5
Composite Reliability	0.80	Fornell and Larcker (1981)	All constructs scored higher than 0.8
Cronbach Alpha	0.70	Hair, Black, Babin, and Anderson (2014)	All constructs scored higher than 0.70
AVE (Average Variance Extracted)	0.50	Hair, Black, Babin, and Anderson (2014)	All higher than 0.5
Discriminant Validity	MSV < AVE	Fornell & Cha (1994), Hamid, Sami, & Sidek (2017), Wong KKK (2013)	All MSV < AVE
CMIN/df	< 3	and Hu and Bentler (1999)	2.845
CFI	≥ 0.90	Collier (2020)	0.909
TLI	≥ 0.90	Collier (2020)	0.901
RMSEA	≤ 0.08	Browne & Cudeck (1992)	0.079
RMR	< 0.07	Collier (2020), Mac Callum et al. (1996)	0.054

After the validity and reliability of the measurement model are demonstrated powerfully, the structural model is examined. Structural equation modeling (SEM) is applied to investigate the relationships between constructs under observations simultaneously. These refer to the influences between constructs representing the hypotheses in Figure 1. The goodness of fit statistics presented in Table 2 shows that the overall structural model fit statistics are within the recommended fit indices, which are CMIN/DF<3, CFI>0.90, RMSEA<0.08, and RMR<0.05 (Hu & Bentler, 1999). GFI >0.8 is also acceptable (Ato Sarsah et al., 2020).

Table 2. Structural Model Data Analysis

Fit indices						
CMIN/DF= 2.785; p-value= 0.000; GFI= 0.896; CFI= 0.915; RMSEA= 0.063; RMR= 0.052						
H	Relationship	Standardize d Estimates	Non-Standardized Estimates	T-Value	P-Value	Accepted/ Not
H1	EO -> ITAC	0.571	0.654	5.367	***	Accepted

H2	EO -> D	0.465	0.534	4.335	0.91	Not Accepted
H3	TL -> ITAC	0.462	0.743	6.782	**	Accepted
H4	TL -> D	0.324	0.465	9.682	0.88	Not Accepted
H5	ITAC -> FP	0.682	0.643	8.362	***	Accepted
H6	ITAC -> D	0.765	0.851	6.553	***	Accepted
H7	D -> FP	0.674	0.781	8.514	**	Accepted

Note(s): ***p<0.001, **p<0.01, *p<0.05.

Table 2 also summarises the structural model coefficients and their significance. This research examines the precursors of IT adoption capability (ITAC) and digitalization (D) which hypothesized entrepreneurial orientation (EO) and transformational leadership (TL) as the potential antecedents. The proposed research model also investigates the IT adoption capability (ITAC) and digitalization (D) relationships with firm performance (FP). The results conclude that entrepreneurial orientation (EO) and transformational leadership (TL) are critical in improving IT adoption capability (ITAC). Hence, the data support hypotheses 1 (H1) and 2 (H2). However, entrepreneurial orientation (EO) and transformational leadership (TL) do not influence digitalization (D) directly, as hypotheses 3 and 4 are not supported. IT adoption capability (ITAC) positively influences digitalization (D), as hypothesis 6 (H6) is supported. Both IT adoption capability (ITAC) and digitalization (D) are proven to positively influence firm performance (FP) with hypothesis 5 (H5) and hypothesis 6 (H6) are accepted. The result of the research model is depicted in Figure 2 below.

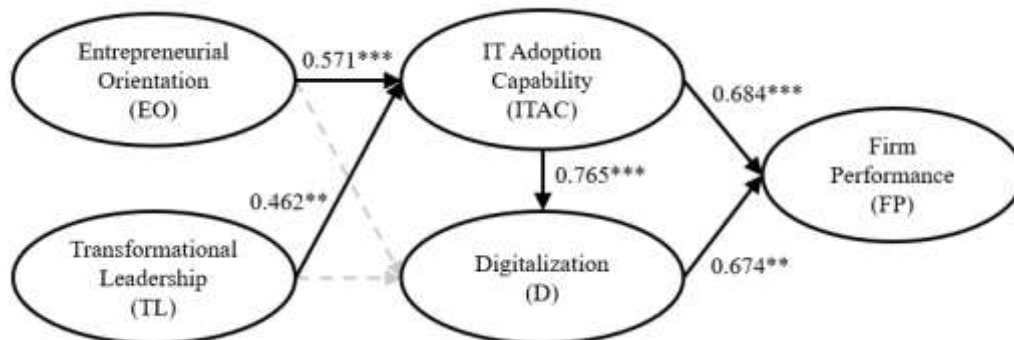


Figure 2. Research Model Supported by Data

The objective of this study is to investigate the influences of entrepreneurial orientation (EO) and transformational leadership (TL) on IT adoption capability (ITAC) and digitalization (D) process in search of higher firm performance (FP). The findings indicate entrepreneurial orientation (EO) and transformational leadership (TL) are crucial in building IT adoption capability (ITAC). Firm innovativeness, proactiveness, and tendency to take risks are key ingredients to developing IT-related capabilities such as ITAC. Adopting new technologies such as IT will require acceptance of innovation and willingness to source the new technologies available in the market. Innovativeness and proactiveness would promote the adoption of new technologies (Lumpkin & Dess, 1996). The process may also end in failure. Hence, risk-taking is required in building ITAC. Firm-level entrepreneurship will be exhibited by their openness to new technology adoption. Transformational leadership (TL) leads with inspiration for a better change in the future. Transformational leaders would not just be able to convince their followers to embark on a series of change behaviours; they also show how the change process could be done. In addition, they would be able to ease the tension in the organization during the change process. Manzoor et al. (2019) postulate that among the positive characteristics of transformational leaders is their ability to motivate employees and leads by example. They

challenge their team members to set higher goals and inspires them with future plans. These characteristics bring belief in the team member's ability to complete their task (Gui et al., 2021).

However, the effect of entrepreneurial orientation (EO) and transformational leadership (TL) is not significant for digitalization (D). This finding is different from both antecedents' effects on IT adoption capability. There are several plausible explanations. Although entrepreneurial orientation (EO) and transformational leadership (TL) enhanced the building of IT adoption capability (ITAC), it is not the same for digitalization (D). Digitalization is different from IT adoption capability. While the latter focuses on the preparation of technology usage, such as infrastructure, strategic alignment, organizational structure, and individual learning, digitalization measures the impact of technology for sales, service, analysis support, and data integration. Hence, IT adoption capability is essential to execute digitalization process. Without it, entrepreneurial firms equipped with transformational leadership will not succeed in implementing digitalization. This finding is in line with the understanding of RBV, where lower-order capabilities are most of the time needed before developing the higher order ones (Barney, 1991).

This study found that IT adoption capability (ITAC) positively influences digitalization (D). It is understandable as IT adoption capability is the mechanism to make a digitalization process successful. Nugroho et al. (2022) posit that IT adoption capability is central in implementing strategic orientations in pursue of higher performance, especially related to entrepreneurial behaviour and openness to new technologies. The digital transformation would be preceded by the change in organizational behaviour (Banjarnahor et al., 2022). Hence, the relationship between IT adoption capability and digitalization is plausible as ITAC is critical for the digitalization process in organization.

This research also shows that IT adoption capability (ITAC) and digitalization (D) will improve firm performance. IT capability is empirically proven to improve effectiveness and efficiency (Bharadwaj, 2000). IT adoption capability enable firms to execute not just more tasks but more complex ones. In the the tourism industry, it will allow the hospitality industry to focus more on the customers instead of administrative work. Digitalization (D) will also benefit firm performance (FP). While technology advancements further facilitate the learning process, the transitions toward new business models and processes assisted by using technologies will benefit when the workforce is open to new knowledge and skills. Organizations increasingly adopt digitalization to create and deliver customer value (Sturgeon, 2021). It includes better quality products or services, new customer experiences, and easy delivery through new distribution channels. Value creation from digitalization is not limited to benefit only the customers but also extends to improve the business processes. Digitalization enables organizations to provide better sales support, service support, data analysis, data integration, and easy access to the required and important information.

6. CONCLUSION

This research has achieved its objective by establishing relationships between IT adoption capability (ITAC), digitalization (D), and firm performance (FP). It also prove that entrepreneurial orientation (EO) and digitalization (D) are the precursors for IT adoption capability (ITAC) but not digitalization (D). The research data conclude that IT adoption capability (ITAC) and digitalization (D) positively influence firm performance (FP). The research also suggests that IT adoption capability (ITAC) could be a good mechanism for an entrepreneurial firm with transformational leadership to implement digitalization. It highlights the importance of digitalization in the current environment, where organizations are constantly exposed to technological change and ever-changing market demand. The results align with the organizational behaviour perspective and strategic management concepts.

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